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United States Patent [19][11] **Patent Number:** **5,122,785****Cooper**[45] **Date of Patent:** * **Jun. 16, 1992**[54] **SQUEEZABLE CONTROL DEVICE FOR
COMPUTER DISPLAY SYSTEM**[75] **Inventor:** **James L. Cooper**, Tyngsboro, Mass.[73] **Assignee:** **Wang Laboratories, Inc.**, Lowell,
Mass.[*] **Notice:** The portion of the term of this patent
subsequent to Apr. 9, 2008 has been
disclaimed.[21] **Appl. No.:** **601,033**[22] **Filed:** **Oct. 22, 1990****Related U.S. Application Data**

[63] Continuation of Ser. No. 271,126, Nov. 14, 1988, abandoned, which is a continuation-in-part of Ser. No. 206,549, Jun. 14, 1988, Pat. No. 5,006,836.

[51] **Int. Cl.⁵** **G09G 5/08**[52] **U.S. Cl.** **340/710; 273/148 B**[58] **Field of Search** **340/706, 709, 710, 721,**
340/723, 724, 726; 200/6 R, 6 A; 273/148 B;
250/221; 74/471[56] **References Cited****U.S. PATENT DOCUMENTS**

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1-32.*Primary Examiner*—Alvin E. Oberley*Assistant Examiner*—Richard Hjerpe*Attorney, Agent, or Firm*—Michael H. Shanahan;

Kenneth L. Milik

[57] **ABSTRACT**

A squeezable cursor control device provides movement of moveable entities displayed on a computerized display. In one application the squeezable cursor control device provides scrolling of window contents as a function of cursor position relative to the window. The cursor positioned within the window provides short range scrolling upon squeezing of two opposed portions of the control device. The cursor positioned outside the window provides medium and long range scrolling upon squeezing of the control device. Graphical indicators such as directional indications and elevator bars aid selection and specification of medium and long range scrolling. A graphical indicator of a user generated path provides direction and amount of scrolling in short range scrolling.

31 Claims, 10 Drawing Sheets